

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Previously presented): A semiconductor device comprising:

a first insulating film formed over a substrate;

a first interconnection buried in at least a surface side of the first insulating film, the first interconnection having a first pattern which is bent at right angle and a second pattern;

a second insulating film formed on the first insulating film with the first interconnection buried in, and including a groove-shaped via-hole formed in a region above the first pattern of the first interconnection and a hole-shaped via-hole formed in a region above the second pattern, of the first interconnection, the groove-shaped via-hole having a pattern which is formed along an extending direction of the first interconnection and is bent at a right angle, a width of the groove-shaped via-hole being 20-140% of a width of the hole-shaped via-hole;

a first buried conductor filled in the groove-shaped via-hole; and

a second buried conductor buried in the hole-shaped via-hole.

2-11. (Cancelled).

12. (Previously presented): A semiconductor device comprising:

a first insulating film formed over a substrate;

a first interconnection buried in at least a surface side of the first insulating film, the first interconnection having a first pattern which is bent at right angle and a second pattern;

a second insulating film formed on the first insulating film with the first interconnection buried in, and including a groove-shaped via-hole formed in a region above the first pattern of the first interconnection and a hole-shaped via-hole formed in a region above the second pattern of the first interconnection, the groove-shaped via-hole having a pattern which is formed along an extending direction of the first interconnection and is bent at a right angle, a width of the groove-shaped via-hole being not more than a width of the hole-shaped via-hole;

a first buried conductor filled in the groove-shaped via-hole; and

a second buried conductor buried in the hole-shaped via-hole.

13-21. (Cancelled).

22. (Previously presented): A semiconductor device comprising:

a conducting layer buried in a surface side of a substrate, the conducting layer having a first pattern which is bent at a right angle and a second pattern;

an insulating film formed on the substrate with the conducting layer buried in, and including a groove-shaped via-hole formed in a region above the first pattern of the conducting layer and a hole-shaped via-hole formed in a region above the second pattern of the conducting layer, the via-hole having a pattern which is formed along an extending direction of the

conducting layer and is bent at a right angle, a width of the groove-shaped via-hole being 20-140% of a width of the hole-shaped via-hole;

a first buried conductor filled in the groove-shaped via-hole; and

a second buried conductor buried in the hole-shaped via-hole.

23. (Cancelled).

24. (Original): A semiconductor device according to claim 1, wherein

the first interconnection is formed of a conductor which is mainly formed of copper.

25. (Cancelled).

26. (Original): A semiconductor device according to claim 1, further comprising:

a second interconnection formed on the second insulating film and formed of a conductor which is mainly formed of aluminum.

27. (Cancelled).

28. (Original): A semiconductor device according to claim 26, wherein

the first interconnection and the second interconnection have the same pattern.

29-30. (Cancelled).

31. (Original): A semiconductor device according to claim 1, wherein
the first buried conductor and the second buried conductor are formed of a conductor
mainly formed of tungsten.

32-33. (Cancelled).

34. (Previously presented): A semiconductor device according to claim 1, wherein
the second insulating film includes a silicon nitride film and a silicon oxide film formed
over the silicon nitride film.

35-36. (Cancelled).

37. (Previously presented): A semiconductor device according to claim 1, wherein
the first insulating film includes a silicon nitride film and a silicon oxide film formed
over the silicon nitride film.

38-41. (Cancelled).

42. (Previously presented) A semiconductor device according to claim 1, wherein the second insulating film includes an SiC film and a silicon oxide film formed over the SiC film.

43. (Previously presented) A semiconductor device according to claim 1, wherein the first insulating film includes an SiC film and an SiOC film formed over the SiC film.

44. (Previously presented) A semiconductor device according to claim 1, wherein the first buried conductor completely fills the groove-shaped via-hole without any voids.

45. (Previously presented): A semiconductor device comprising:
a conducting layer buried in a surface side of a substrate, the conducting layer having a first pattern which is bent at a right angle and a second pattern;
an insulating film formed on the substrate with the conducting layer buried in, and including a groove-shaped via-hole formed in a region above the first pattern of the conducting layer and a hole-shaped via-hole formed in a region above the second pattern of the conducting layer, the groove-shaped via-hole having a pattern which is formed along an extending direction of the conducting layer and is bent at a right angle, a width of the groove-shaped via-hole being not more than a width of the hole-shaped via-hole;
a first buried conductor filled in the groove-shaped via-hole; and
a second buried conductor buried in the hole-shaped via-hole.

46. (Previously presented): A semiconductor device according to claim 12, wherein the first interconnection is formed of a conductor which is mainly formed of copper.

47. (Previously presented): A semiconductor device according to claim 12, further comprising:

a second interconnection formed on the second insulating film and formed of a conductor which is mainly formed of aluminum.

48. (Previously presented): A semiconductor device according to claim 47, wherein the first interconnection and the second interconnection have the same pattern.

49. (Previously presented): A semiconductor device according to claim 12, wherein the first buried conductor and the second buried conductor are formed of a conductor mainly formed of tungsten.

50. (Previously presented): A semiconductor device according to claim 22, wherein the first buried conductor and the second buried conductor are formed of a conductor mainly formed of tungsten.

51. (Previously presented): A semiconductor device according to claim 45, wherein

the first buried conductor and the second buried conductor are formed of a conductor mainly formed of tungsten.

52. (Previously presented) A semiconductor device according to claim 1, wherein the first insulating film includes an SiC film and an SiOC film formed over the SiC film.